

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF TEXAS
DALLAS DIVISION

THE ERICA P. JOHN FUND, INC., et al., *On
Behalf of Itself and All Others Similarly Situated,*

Plaintiff,

vs.

HALLIBURTON COMPANY and DAVID J.
LESAR,

Defendants.

CIVIL ACTION NO.: 3:02-CV-1152-M

CLASS ACTION

**LEAD PLAINTIFF'S CORRECTED MOTION TO EXCLUDE OR STRIKE
EXPERT TESTIMONY OF LUCY ALLEN**

Kim E. Miller
(admitted pro hac vice)
KAHN SWICK & FOTI, LLC
250 Park Avenue, Suite 2040
New York, NY 10177
Tel: (212) 696-3730
Fax: (504) 455-1498

Lewis S. Kahn
Michael Swick
Neil Rothstein
(admitted pro hac vice)
KAHN SWICK & FOTI, LLC
206 Covington Street
Madisonville, LA 70447
Tel: (504) 455-1400
Fax: (504) 455-1498

***SPECIAL COUNSEL TO LEAD
PLAINTIFF, THE ERICA P. JOHN
FUND, INC., AND THE CLASS***

David Boies
(admitted pro hac vice)
BOIES, SCHILLER & FLEXNER LLP
333 Main Street
Armonk, NY 10504
Tel: (914) 749-8200
Fax: (914) 749-8300

Carl E. Goldfarb
(admitted pro hac vice)
BOIES, SCHILLER & FLEXNER LLP
401 E. Las Olas Blvd., Suite 1200
Ft. Lauderdale, FL 33301
Tel: (954) 356-0011
Fax: (954) 356-0022

***LEAD COUNSEL TO LEAD PLAINTIFF,
THE ERICA P. JOHN FUND, INC., AND
THE CLASS***

TABLE OF CONTENTS

	<u>Page</u>
TABLE OF AUTHORITIES	ii
I. INTRODUCTION	1
II. BACKGROUND	2
III. LEGAL STANDARDS FOR EXPERT OPINIONS	3
IV. ARGUMENT	5
A. Allen Applied An Improper Adjustment For Multiple Comparisons Which Required A 99.86% Confidence Level To Find Statistical Significance.	5
1. Application Of The Bonferroni Adjustment To Economic Event Study Data Has Not Been Generally Accepted In The Scientific Community.	6
2. The Bonferroni Adjustment Produces Overly Conservative Results In This Context And Has An Unacceptably High Rate Of Error.	8
3. Allen Did Not Reliably Apply The Bonferroni Adjustment To The Facts Of The Case.	10
B. Allen’s Opinions As To Which Disclosures Are “Corrective Disclosures” Are Not Reliable And Should Be Stricken.	11
1. The Correct Legal Standard.....	11
2. Allen Relies On <i>Ipse Dixit</i> Reasoning And Fails To Analyze The Relation Between The Misrepresentations And Corrective Disclosures...	12
3. Allen’s Opinions Are Based On The Wrong Legal Standard.	15
4. Allen Fails To Test For The Possibility Of Partial Corrective Disclosures.	17
5. Allen Places Undue Weight On Her Biased Selection Of Analyst Reports.....	19
C. Allen’s Opinion As To What Caused Halliburton’s Stock To Drop on December 7, 2001 Is Based On Speculation.	20
CONCLUSION	24

TABLE OF AUTHORITIES

	<u>Page</u>
<u>Cases</u>	
<i>Alaska Elec. Pension Fund v. Flowserve Corp.</i> , 572 F.3d 221 (5th Cir. 2009)	11
<i>Am. Honda Motor Co. v. Allen</i> , 600 F.3d 813 (7th Cir. 2010)	5
<i>Amorgianos v. Nat'l R.R. Passenger Corp.</i> , 303 F.3d 256 (2d Cir. 2002)	17
<i>Beech Aircraft Corporation v. U.S.</i> , 51 F.3d 834 (9th Cir. 1995)	21
<i>Bell v. Ascendant Solutions, Inc.</i> , No. Civ. A. 301–CV–0166–N, 2004 WL 1490009 (N.D. Tex. July 1, 2004)	5
<i>Billhofer v. Flamel Techs., S.A.</i> , 281 F.R.D. 150 (S.D.N.Y. 2012)	8
<i>Braun v. Lorillard Inc.</i> , 84 F.3d 230 (7th Cir. 1996)	7
<i>Cannon v. BP Products North America, Inc.</i> , No. 3:10-CV-00622, 2013 WL 5514284 (S.D. Tex. Sept. 30, 2013)	4, 5
<i>Cook ex rel. Estate of Tessier v. Sheriff of Monroe County, Fla.</i> , 402 F.3d 1092 (11th Cir. 2005)	21
<i>Crown Cork & Seal Co., Inc. Master Retirement Trust v. Credit Suisse First Boston</i> , No. 12-cv-05803-JLG, 2013 WL 978980 (S.D.N.Y. Mar. 12, 2013)	17
<i>Dart v. Kitchens Bros. Mfg. Co.</i> , 253 Fed. Appx. 395 (5th Cir. 2007)	7
<i>Daubert v. Merrell Dow Pharmaceuticals, Inc.</i> , 509 U.S. 579 (1993)	<i>passim</i>
<i>EEOC v. Autozone, Inc.</i> , No. 00-2923, 2006 U.S. Dist. LEXIS 61784 (W.D. Tenn. Aug. 29, 2006)	8
<i>Frosty v. Textron, Inc.</i> , 891 F. Supp. 551 (D. Or. 1995)	23

<i>General Electric Co. v. Joiner</i> , 522 U.S. 136 (1997)	4, 15
<i>Hathaway v. Bazany</i> , 507 F.3d 312 (5th Cir. 2007)	4
<i>In re Executive Telecard Ltd., Sec. Litig.</i> , 979 F. Supp. 1021 (S.D.N.Y. 1997)	21, 23
<i>In re Longtop Financial Technologies Ltd. Securities Litigation</i> , No. 11-cv-3658, 2014 WL 2998524 (S.D.N.Y. July 3, 2014)	20
<i>In re TMI Litig. Cases Consol. II</i> , 911 F. Supp. 775 (M.D. Pa. 1996)	21
<i>Johnson v. Arkema, Inc.</i> , 685 F.3d 452 (5th Cir. 2012)	5
<i>Kuhmo Tire Co. v. Carmichael</i> , 526 U.S. 137 (1999)	4
<i>Lormand v. US Unwired, Inc.</i> , 565 F.3d 228 (5th Cir. 2009)	<i>passim</i>
<i>Lust v. Merrell Dow Pharm., Inc.</i> , 89 F.3d 594 (9th Cir. 1996)	4, 9
<i>Moore v. Ashland Chemical Inc.</i> , 151 F.3d 269 (5th Cir. 1998)	15
<i>Noskowiak v. Bobst SA</i> , No. 04-C-0642, 2005 WL 2146073 (E.D. Wis. Jan. 2, 2005)	17
<i>Pub. Employees Ret. Sys. of Mississippi, Puerto Rico Teachers Ret. Sys. v. Amedisys, Inc.</i> , No. 13-30580, 2014 WL 4931411 (5th Cir. Oct. 2, 2014)	<i>passim</i>
<i>S.E.C. v. Cuban</i> , No. 3:08-CV-2050-D, 2013 WL 3809654 (N.D. Tex. July 23, 2013)	15
<i>Skipper v. Sears Roebuck & Co.</i> , No. 94-1231, 1996 U.S. Dist. LEXIS 20726 (W.D. La. June 13, 1996)	9
<i>Spitzberg v. Houston Am. Energy Corp.</i> , 758 F.3d 676 (5th Cir. 2014)	12, 17
<i>Unger v. Amedisys Inc.</i> , 401 F.3d 316 (5th Cir. 2005)	5

<i>United States v. Frazier</i> , 387 F.3d 1244 (11th Cir. 2004)	21
---	----

Rules

Fed. R. Evid. 702	<i>passim</i>
Fed. R. Evid. 702(c)	17

Other Authorities

Herve Abdi, “The Bonferroni and Sidak Corrections” in Encyclopedia of Measurement Statistics, edited by Neil J. Salkind (Sage 2007)	10
Herve Abdi, “Holm’s Sequential Bonferroni Procedure,” Encyclopedia of Research Design, ed. Neil J. Salkind (Sage 2010)	9
David Tabak, “Multiple Comparisons and the Known or Potential Error Rate,” Journal of Forensic Economics, 19(2) 2006)	7
Thomas V. Perneger, “What’s Wrong with Bonferroni Adjustments,” US National Library of Medicine (Apr. 18, 1998)	8
Eric W. Weisstein, “CRC Concise Encyclopedia of Mathematics” (Chapman & Hall, 2003)	8

Lead Plaintiff moves this Court for entry of an order excluding or striking the testimony of Defendants' proposed expert, Lucy Allen.¹

I. INTRODUCTION

The report of Lucy Allen ("Allen Report"), submitted by Defendants in support of their Opposition to Plaintiff's Motion for Class Certification, and her proposed testimony are inadmissible under Federal Rule of Evidence 702 ("Rule 702") and *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), for multiple reasons. First, Allen's conclusion that the information released through the corrective disclosures at issue did not result in statistically significant price movements rests on a faulty adjustment for multiple comparisons. Rather than applying a standard 95% confidence level to determine whether a price movement was statistically significant or the result of chance, Allen improperly applied a 99.86% confidence level, finding a price movement was not statistically significant if there was approximately 1 chance in 700 that the price movement was caused by random stock fluctuations.

Second, Allen engaged in an improper analysis to determine what constitutes a corrective disclosure. She failed to examine the relationship between the corrective disclosures and the misrepresentations, but rather improperly placed dispositive weight on whether analysts recognized at the time of the alleged corrective disclosure that the market had been defrauded.

Third, Allen opined that most of Halliburton's precipitous 42% stock price drop was caused by factors affecting other companies with asbestos liability as well, but she based her opinion on a misleading comparison with three other companies and avoided testing her hypothesis against her own 31-company asbestos index. Had she run a regression analysis using her own asbestos index, the results would have refuted her hypothesis, showing that less than 4% of Halliburton's stock drop on December 7, 2001 can be explained by factors that affected the

¹ The only changes that have been made in this corrected motion are corrections of record citations and typographical errors.

other companies in that index. In sum, Allen's analysis rests on an improper methodology and incorrect legal framework that renders many of her opinions unreliable and therefore inadmissible.

II. BACKGROUND

Allen submitted her current report on September 10, 2014, to "analyze the price impact of the alleged misrepresentations[.]" Appendix ("App.") 144, Allen Report at ¶ 1. Allen opined on several different matters. First, she opined as to whether there was a statistically significant stock price movement on the dates of the corrective disclosures. Using an event study, she found that there was a statistically significant price movement for asbestos disclosures on June 28, 2001; August 9, 2001; October 30, 2001; and December 7, 2001. She did not find a statistically significant price movement on December 4, 2001. As to accounting claims, she found there was a statistically significant price movement on December 22, 2000 but not on December 21, 2000. *Id.* 202, Allen Report at ¶ 130 ("[T]he price movement on December 22, 2000 was statistically significant when tested on its own").

Second, even though Allen found price movement on certain dates that were statistically significant at a 95% confidence level, she ultimately concluded that there was no statistically significant price movement on those dates. She reached that conclusion by applying a statistical adjustment to her results, a Bonferroni adjustment, allegedly to weed out false positives resulting from the fact that Plaintiff's prior expert tested multiple days for statistical significance. *Id.* 158, Allen Report at ¶ 26.

Third, after addressing whether any of the stock price movement was statistically significant, Allen opined that not one of the alleged corrective disclosures was a corrective disclosure. Thus, she found that there was no price impact caused by any misrepresentations, regardless of whether she found a statistically significant price movement.

Finally, Allen further opines on the cause of Halliburton's December 7 stock price drop of over 40%. In her report, she writes the *entire* drop was caused by "the change in the economic and asbestos environment." *Id.* 240, Allen Report at ¶ 229. In her deposition, however, she retreated from that assertion testifying that "a large portion" of Halliburton's stock drop on December 7 was caused by "the change in the economic and asbestos environment." *Id.* 337, Sept. 22, 2014 Allen Dep. 191:4-9.

As explained below, Allen's various opinions are not reliable because they rest on an improper methodology. They should be excluded.

III. LEGAL STANDARDS FOR EXPERT OPINIONS

An expert's opinion may only be considered if the expert is qualified and the opinion is reliable, based upon well-established criteria. Specifically, Rule 702 of the Federal Rules of Evidence states as follows:

A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if:

- (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;
- (b) the testimony is based on sufficient facts or data;
- (c) the testimony is the product of reliable principles and methods; and
- (d) the expert has reliably applied the principles and methods to the facts of the case.

Fed. R. Evid. 702. In *Daubert v. Merrell Dow Pharmaceutical, Inc.*, 509 U.S. 579 (1993), the Supreme Court set forth the following list of specific factors a trial court may use to assess whether expert testimony is the product of reliable principles and methods:

- (1) whether the expert's technique or theory can be or has been tested—that is, whether the expert's theory can be challenged in some objective sense, or whether it is instead simply a subjective conclusory approach that cannot be reasonably assessed for reliability;
- (2) whether the technique or theory has been subject to peer review and publication;
- (3) the known or potential rate of error of the technique or theory when applied;
- (4) the existence and maintenance of standards and controls; and

(5) whether the technique or theory has been generally accepted in the scientific community.

Id. at 593-95. Each factor's usefulness will vary "depending on the nature of the issue, the expert's particular expertise, and the subject of the testimony." *Kuhmo Tire Co. v. Carmichael*, 526 U.S. 137, 150 (1999).

Although *Daubert* states that the "focus . . . must be solely on the principles and methodology, not on the conclusions they generate," 509 U.S. at 595, the Court later recognized in *General Electric Co. v. Joiner*, 522 U.S. 136, 146 (1997) that "conclusions and methodology are not entirely distinct from one another" and established the "fit" test under which a "court may conclude that there is simply too great an analytical gap between the data and the opinion proffered." Expert opinions are also inadmissible to the extent they fail to adequately account for obvious alternative explanations, as well as bias, resulting from failure to include certain variables. *See Cannon v. BP Products North America, Inc.*, No. 3:10-CV-00622, 2013 WL 5514284, at *6, *9 (S.D. Tex. Sept. 30, 2013).

Moreover, an expert's mere assertion that his or her calculations are formulated consistent with "generally accepted statistical methods" is not sufficient to establish the reliability of such methods. *See, e.g., Daubert*, 509 U.S. at 593-95; Fed. R. Evid. 702 Adv. Comm. Note ¶ 8 (citing *Lust v. Merrell Dow Pharm., Inc.*, 89 F.3d 594, 598 (9th Cir. 1996)) ("when an expert purports to apply principles and methods in accordance with professional standards, and yet reaches a conclusion that other experts in the field would not reach, the trial court may fairly suspect that the principles and methods have not been faithfully applied").

The trial court has the responsibility to decide "whether expert testimony under Rule 702 is 'not only relevant, but reliable.'" *Hathaway v. Bazany*, 507 F.3d 312, 317 (5th Cir. 2007) (quoting *Daubert*, 509 U.S. at 589). The reliability prong "mandates that the expert opinion be grounded in the methods and procedures of science and be more than unsupported speculation or

subjective belief.” *Johnson v. Arkema, Inc.*, 685 F.3d 452, 459 (5th Cir. 2012) (internal quotation marks omitted). An opinion is relevant if “the expert’s reasoning or methodology can be properly applied to the facts in issue.” *Id.* The proponent of the expert testimony bears the burden of proving its reliability and relevance by a preponderance of the evidence. *Id.*

Courts within the Fifth Circuit routinely apply the *Daubert* standard at the class certification stage. “When considering expert opinions at the class certification stage, ‘court[s] should rely on the admissibility standards for expert evidence as construed by the Supreme Court in *Daubert* . . . and *Kumho*[.]’” *Cannon*, 2013 WL 5514284, at *6 (quoting Hon. David Hittner et al., Practice Guide: Federal Civil Procedure Before Trial, 5th Circuit Edition ¶ 10:577.1 (2011) and *Am. Honda Motor Co. v. Allen*, 600 F.3d 813, 816 (7th Cir. 2010) (“[T]he district court must perform a full *Daubert* analysis before certifying the class if the situation warrants.”)). The Fifth Circuit itself has directed courts to consider the admissibility of expert testimony necessary to establish one of the prerequisites to class certification under Rule 23. *Unger v. Amedisys Inc.*, 401 F.3d 316, 321 (5th Cir. 2005) (“it makes sense to consider the admissibility of the testimony of an expert proffered to establish one of the Rule 23 elements in the context of a motion to strike prior to considering class certification.”) (quoting *Bell v. Ascendant Solutions, Inc.*, No. Civ. A. 301–CV–0166–N, 2004 WL 1490009, at *3-*4 (N.D. Tex. July 1, 2004)).

IV. ARGUMENT

A. Allen Applied An Improper Adjustment For Multiple Comparisons Which Required A 99.86% Confidence Level To Find Statistical Significance.

Even though Allen’s own event study confirms the significant price reactions to disclosures alleged in the Fourth Amended Complaint, Allen asserts that these events—with one exception²—are not statistically significant after applying the Bonferroni multiple comparison

² Allen agrees with Plaintiff that the price reaction to the December 7, 2001 corrective disclosure is statistically significant with or without the Bonferroni adjustment. *See* App. 310-311, Allen

adjustment (or correction). App. 274-277, Allen Report at Ex. 1a (showing all adjustments made); *see also id.* 202, 268, 271, Allen Report at ¶¶ 130, 289, 299. Allen's use of this adjustment renders her opinion inadmissible under *Daubert* and Rule 702 because the Bonferroni adjustment 1) is not "generally accepted in the scientific community" in this type of case; 2) does not produce reliable results in this type of case; and 3) is not "reliably applied...to the facts of the case." *Daubert*, 509 U.S. at 593-95; Fed. R. Evid. 702.

1. Application Of The Bonferroni Adjustment To Economic Event Study Data Has Not Been Generally Accepted In The Scientific Community.

The standard approach used by economists for determining the statistical significance of a particular event (whether testing one or multiple events) is not to apply a multiple comparison adjustment, but rather to evaluate the probability of a false positive or Type I error *for that particular event* given the observed price movement and then comparing it to the relevant threshold (e.g., 5% if using the 95% confidence threshold). *See* App. 32, Coffman Report at ¶ 45. In theory, multiple comparison adjustments, such as the Bonferroni adjustment, attempt to counteract the possibility for false positive results when statistical analyses use multiple tests. But here, where the event study begins with the theory of semi-strong efficient markets, under which we *expect* to observe stock price declines upon the revelation of significant negative news, and the relevant corrective disclosure dates were not selected randomly to explain price movements, multiple comparison adjustments are unnecessary and lead to unreliable results. *See id.* 33-34, 38, Coffman Report at ¶¶ 48, 57. Indeed, none of the academic articles concerning event studies cited in Allen's report recommend applying a Bonferroni adjustment or any other adjustment for multiple comparisons. *See id.* 154, Allen Report at ¶ 19, n.17, n.18.

Dep. 85:22–86:2 ("That's correct, after a multiple comparison adjustment, I find that the price reaction on December 7th is statistically significant, both before and after a multiple comparison adjustment.").

The Bonferroni adjustment is not a standard, recognized, or acceptable adjustment in event study literature, much less in the context of class action securities litigation. Allen's unprecedented departure from standard practice and lack of rationale for doing so justify exclusion under *Daubert*. See *Dart v. Kitchens Bros. Mfg. Co.*, 253 Fed. Appx. 395, 398 (5th Cir. 2007) (affirming magistrate's exclusion of expert testimony in part because expert "could not establish that his method had ever been used before and did not compare his method with an established one"); see also *Braun v. Lorillard Inc.*, 84 F.3d 230, 234 (7th Cir. 1996) ("The scientific witness who decides to depart from the canonical methods must have grounds for doing so that are consistent with the methods and usages of his scientific community.").

Allen acknowledged during her deposition that she could not recall a single expert report when she herself had used the Bonferroni method. App. 304, Allen Dep. 58:19-20 ("I don't recall doing a Bonferroni adjustment previously."). Nor could Allen point to any particular circumstance where anyone else in her field, other than her colleagues at NERA, had used the Bonferroni adjustment, besides making the vague assertion that she had seen testimony in court decisions that referred to multiple comparison adjustments. *Id.* 303-4, Allen Dep. 57:22-58:12. Allen noted that she learned of the Bonferroni adjustment from one of her colleagues at NERA who had published an article on multiple comparison adjustments, yet the article itself does not contain a single reference to Bonferroni. *Id.* 304, Allen Dep. 58:19-59:16; (referencing David Tabak, "Multiple Comparisons and the Known or Potential Error Rate," *Journal of Forensic Economics*, 19(2) 2006). Thus, her report's reliance on the Bonferroni adjustment does not meet the *Daubert* criteria of being accepted in the relevant scientific community. *Daubert*, 509 U.S. at 594 ("A known technique which has been able to attract only minimal support within the community may properly be viewed with skepticism").

2. The Bonferroni Adjustment Produces Overly Conservative Results In This Context And Has An Unacceptably High Rate Of Error.

In statistics, the Bonferroni adjustment is an often criticized method of counteracting the potential for false positive results when there is a statistical analysis that uses multiple comparisons.³ The method is aptly described as the “most conservative”⁴ of the adjustment methods, because it requires a far more demanding standard of statistical significance than the threshold for statistical significance commonly used by courts and statistics experts (95%). *See, e.g., Billhofer v. Flamel Techs., S.A.*, 281 F.R.D. 150, 162 (S.D.N.Y. 2012) (95% confidence level is “the standard test in the finance literature”); *see also* App. 312-313, Allen Dep. 93:10–94:19 (conceding that when using the Bonferroni adjustment, the threshold T-statistic would need to correspond to a 99.86% confidence level that the price movement on that day was not caused by chance).

Moreover, because the Bonferroni adjustment only controls for—and indeed, overcorrects for—the possibility of false positives, the correction also increases the probability of producing false negatives, which in turn reduces the statistical accuracy of the study. *See* Thomas V. Perneger, “What’s Wrong with Bonferroni Adjustments,” US National Library of Medicine (Apr. 18, 1998) (“Type I errors cannot decrease (the whole point of Bonferroni adjustments) without inflating type II errors (the probability of accepting the null hypothesis when the alternative is true). And type II errors are no less false than type I errors.”).⁵ The

³ *See* Thomas V. Perneger, “What’s Wrong with Bonferroni Adjustments,” US National Library of Medicine (Apr. 18, 1998); *see also* *EEOC v. Autozone, Inc.*, No. 00-2923, 2006 U.S. Dist. LEXIS 61784, at *11 (W.D. Tenn. Aug. 29, 2006) (“Given the contradictory views on the use of statistical adjustments, particularly the Bonferroni adjustment, the court does not have a sufficient basis to find that statistical adjustment was required in this case.”).

⁴ Eric W. Weisstein, *CRC Concise Encyclopedia of Mathematics*, (Chapman & Hall, 2003) at 261.

⁵ *See* <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1112991/>.

Bonferroni adjustment's high risk of error is further ground for exclusion of Allen's testimony. *Skipper v. Sears Roebuck & Co.*, No. 94-1231, 1996 U.S. Dist. LEXIS 20726, at *44 (W.D. La. June 13, 1996) (rejecting expert methodology on the basis that it "was so fatally flawed as to interject such a high inherent risk of error").

At her deposition, Allen conceded that false negatives are a byproduct of the Bonferroni adjustment, App. 312, Allen Dep. 91:16-23, and agreed that, when performing a statistical analysis, economists should try to avoid false negative (type 2) errors, *id.* 313, Allen Dep. 95:15-20. Yet, when asked during her deposition what steps she took to avoid the potential for increased false negatives, Allen could not point to a single test or study she had done to address that concern. *Id.* 313-314, Allen Dep. 95:21-96:24; 98:7-99:21. Thus, with respect to the "known or potential rate of error" *Daubert* factor, Allen's report is fatally defective. *See* Fed. R. Evid. 702 Adv. Comm. Note ¶ 8 (citing *Lust v. Merrell Dow Pharm., Inc.*, 89 F.3d 594, 598 (9th Cir. 1996)) ("when an expert purports to apply principles and methods in accordance with professional standards, and yet reaches a conclusion that other experts in the field would not reach, the trial court may fairly suspect that the principles and methods have not been faithfully applied.").

Even if some multiple comparison adjustment were appropriate—which it is not—Allen did not consider an adjustment that controls for the inaccuracies of the Bonferroni correction. Since Italian mathematician Carlo Emilio Bonferroni first wrote on this subject in the mid-1930s,⁶ other adjustments, including the Holm-Bonferroni adjustment,⁷ have been developed that

⁶ Eric W. Weisstein, *CRC Concise Encyclopedia of Mathematics*, (Chapman & Hall, 2003) at p. 261.

⁷ *See* Herve Abdi, "Holm's Sequential Bonferroni Procedure," *Encyclopedia of Research Design*, ed. Neil J. Salkind at 2 (Sage 2010) ("The test with the lowest probability is tested first with a Bonferroni correction involving all tests. The second test is tested with a Bonferroni correction

mitigate against the Bonferroni's bias toward finding false negatives. See Herve Abdi, "The Bonferroni and Sidak Corrections" in Encyclopedia of Measurement Statistics, edited by Neil J. Salkind (Sage 2007), at 8 ("Recently, some alternative approaches have been proposed [] to make the correction less stringent (*e.g.*, Holm 1979, Hochberg, 1988).") Allen readily admitted that she did not even consider using Holm-Bonferroni adjustment. App. 313, Allen Dep. 97:20-24. ("I did not or I don't believe I did. I don't even have a specific recollection of what it is.").

Because Allen used a statistical method that is not generally accepted in the relevant scientific community and because it produces inaccurate and unreliable results in the context of this case, her opinion, which relies on this method, should be excluded. *Daubert*, 509 U.S. at 593-95.

3. Allen Did Not Reliably Apply The Bonferroni Adjustment To The Facts Of The Case.

Even if an adjustment for multiple comparisons were appropriate, which it is not, Allen's application of the Bonferroni adjustment to the facts of this case was not accurate. Fed. R. Evid. 702. First, Allen claims that the statistical tests need to be adjusted for 35 days, which includes corrective disclosure events and misstatements. Yet, Plaintiff does not assert that Halliburton's stock price was artificially inflated by positive movements in the price when new unexpected material misrepresentations were made. Rather, Plaintiff alleges that the artificial inflation of the market price for Halliburton stock was maintained by Defendants' misrepresentations and omissions, and through six distinct corrective disclosures,⁸ the artificial inflation eroded and

involving one less test and so on for the remaining tests. Holm's approach is more powerful than the Bonferroni approach but it still keeps under control the inflation of the Type 1 error.").

⁸ Only six corrective disclosure dates – December 21, 2000, June 28, 2001, August 9, 2001, October 30, 2001, December 4, 2001, and December 7, 2001 – are at issue. Plaintiff does not seek to certify the claim relating to the Dresser merger at this time, therefore the corrective disclosures on October 4, 1999, January 5, 2000, October 24, 2000, December 22, 2000, and

Halliburton investors were harmed thereby. Fourth Amended Complaint at ¶¶ 30-39; 52. Of the six events identified as having corrective information, all were significant at the 95% level using either one-day or two-day windows. *See* App. 31, Coffman Report at ¶ 42. Thus, because only six corrective disclosure events are relevant to the price impact inquiry here, Allen over-adjusted by using 29 additional dates. *Id.* 309-310, Allen Dep. 81:21–82:3 (“I did – one of the corrections that I made was using a – yes, 35 test date.”). But Allen does not know how her results would have differed had she adjusted for just six dates. *Id.* 309, Allen Dep. 80:4-8.

B. Allen’s Opinions As To Which Disclosures Are “Corrective Disclosures” Are Not Reliable And Should Be Stricken.

Allen opines that Plaintiff has failed to identify an actionable corrective statement by Halliburton regarding any topic. As discussed below, her opinions are not admissible because they rest on an improper methodology, the wrong legal standard, and excessive reliance on cherry-picked analyst reports.

1. The Correct Legal Standard.

In a securities class action, plaintiffs must show that a corrective disclosure is either “related to” or “relevant to” the defendants’ fraud and earlier misstatements. *Pub. Employees Ret. Sys. of Mississippi, Puerto Rico Teachers Ret. Sys. v. Amedisys, Inc.*, No. 13-30580, 2014 WL 4931411, at *5 (5th Cir. Oct. 2, 2014); *see also Alaska Elec. Pension Fund v. Flowserve Corp.*, 572 F.3d 221, 228, 230 (5th Cir. 2009) (O’Connor, J. sitting by designation) (noting that a corrective disclosure must be “related to” an earlier misstatement and also noting that it “must reflect part of the ‘relevant truth’—the truth obscured by the fraudulent statements”). The standards of relevancy and relatedness are very similar, *Lormand v. US Unwired, Inc.*, 565 F.3d 228, 255-56 (5th Cir. 2009), and “even if [relevancy requires more than relatedness] does,

January 30, 2001 that Allen associates with the Dresser merger are no longer relevant. *See* App. 9-10, 21-22, Coffman Report at ¶¶ 8, 24; *id.* 163, Allen Report at ¶ 33.

neither are steep or difficult standards to satisfy.” *Id.* at 256 n.20. The Fifth Circuit in *Amedysis* clarified that the test for relevant truth “simply means that the truth disclosed must make the existence of the actionable fraud more probable than it would be without that alleged fact, taken as true.” *Amedisys*, 2014 WL 4931411, at *5 (citations omitted).

2. Allen Relies On *Ipse Dixit* Reasoning And Fails To Analyze The Relation Between The Misrepresentations And Corrective Disclosures.

Allen never explains either in her report or deposition how she determines whether an alleged corrective disclosure is in fact corrective. In her report, she merely says, “The fifth and final step of my analysis involved using the information and analyses described above to examine whether there is any evidence the alleged misrepresentation impacted the price of Halliburton’s stock.” App. 158, Allen Report at ¶ 27. In her deposition, she is equally imprecise in describing her methodology. *Id.* 314, Allen Dep. 99:22–106:6.

Determining whether a claimed corrective disclosure is, in fact, a corrective disclosure requires analyzing the substance of an alleged correction to determine whether it is relevant or related to the alleged misrepresentation. *See Spitzberg v. Houston Am. Energy Corp.*, 758 F.3d 676, 688-89 (5th Cir. 2014) (news of a well’s abandonment could serve as a corrective disclosure to previous statements about the existence of oil and gas reserves in the well because the abandonment of the well “would be less probable” if the well had the announced reserves); *Lormand*, 565 F.3d at 260-62 (disclosures about the number of customers that dropped service and subscriber growth could be corrective of statements regarding defendant’s expectation for success in the subprime cellular market).

Allen fails to conduct such an analysis. For instance, on December 21, 2000, Halliburton issued a press release, which stated that the company was taking a \$95 million charge after taxes, in part, because “negotiations with customers regarding cost increases on seven other projects have not resulted in resolution of certain claims as originally anticipated.” App. at 427-428,

SCA00193552-53. Allen claims that release was not corrective of the alleged misrepresentation that Halliburton was booking cost overruns as revenue in violation of accounting rules, but fails to explain, either in her report, App. 198-199, Allen Report at ¶¶ 115-118, or in her deposition, *id.* 352-354, Allen Dep. 251:4–259:16, that *ipse dixit* assertion, which is at odds with the Fifth Circuit’s decision in *Amedisys*, 2014 WL 4931411, at *5 (“the truth disclosed must make the existence of the actionable fraud more probable than it would be without that alleged fact, taken as true”).

Similarly, she assumes that adverse asbestos verdicts are not corrective of Halliburton’s misrepresentations that its liability for pending asbestos claims will be resolved without material impact on its financial operations. The record shows otherwise. The adverse verdicts and judgments that Halliburton disclosed caused declines in Halliburton’s market capitalization that were orders of magnitude greater than the face value of the verdicts or judgments. For example, on October 31, 2001, in the two days after Halliburton announced a \$22 *million* adverse verdict, its market capitalization fell about \$1 *billion*, or about 50 times the face value of the verdict. And on December 7, a \$30 *million* verdict caused a market capitalization loss of \$2.9 *billion* in the following two days, or about 96 times the value of the verdict. App. 75, Coffman Report at 143. The magnitude of the decline on Halliburton’s market capitalization shows the market interpreted the adverse verdicts and judgments as providing information that went far beyond the particular case at issue. This evidence supports the conclusion that these disclosures corrected the market’s understanding based on Halliburton’s false assurances and material omissions regarding Halliburton’s asbestos liability.

The adverse verdicts corrected Halliburton’s misleading prior assertion that the claims pending against it would be resolved without material impact on its operations. *See* App. 409, Halliburton 2001 10K at 49 (“[W]e believe that the open asbestos claims pending against us will

be resolved without a material adverse effect on our financial position or the results of our operations.”) (identical statement in Halliburton’s 1st, 2nd, and 3rd Quarter 2000 10Qs); *id.* at 407, Halliburton 1Q 2001 10Q at 10 (“[W]e believe that the open asbestos claims asserted against us will be resolved without a material adverse effect on our financial position or results of operations.”) (identical statement in 2nd and 3rd Quarter 2001 10Qs). On December 4, 2001, Halliburton announced that a court had awarded 100 plaintiffs \$35.7 million in three settlements, for an average cost of about \$350,000 per settling plaintiff. App. 234, Allen Report at ¶ 211. And on December 7, 2001, Halliburton announced a jury verdict against it for \$30 million for only 5 plaintiffs, or an average of \$6 million per plaintiff. *Id.* 224, Allen Report at ¶ 179. Allen asserts those adverse verdicts and judgments are not corrective even while conceding that they could affect Halliburton’s average cost of settling the hundreds of thousands of claims pending against it. *See* App. 322, Allen Dep. 131:25–132:4 (“I do think a verdict can give information about potential values to settle future claims or to settle pending claims, currently open claims.”)

Analysts, whose reports Allen quotes throughout her report when they support her conclusions, repeatedly recognized the corrective effect of those large adverse verdicts on Halliburton’s cost of resolving claims against it. *See* App. 416, Salomon Smith Barney, December 7, 2001 (noting that concerns about an increase in the net payout per claim, “have been dramatically exacerbated of late by the recent jury awards[.]”); *id.* at 422, RBC Capital Markets, December 10, 2001 (“recent spate of unusually large jury verdicts against the company could result in higher settlement demands and a greater willingness to litigate in future plaintiffs.”); *id.* at 426, Bear Sterns, December 11, 2001 (“It would seem that the average payout of \$195 (net to Halliburton) per claim is a low figure that is bound to increase over time.”).

While conceding that the verdicts might affect future settlements, Allen fails to engage in any analysis of the alleged corrective disclosures and their relationship to the misrepresentations

at issue but rather baldly asserts those and similar verdicts are not corrective. Such *ipse dixit* pronouncements, however, are not reliable and should be excluded. *See General Electric Co. v. Joiner*, 522 U.S. 136, 146 (1997) (“nothing in either *Daubert* or the Federal Rules of Evidence requires a district court to admit opinion evidence that is connected to existing data only by the *ipse dixit* of the expert”); *Moore v. Ashland Chemical Inc.*, 151 F.3d 269 (5th Cir. 1998) (citing *ipse dixit* language in *Joiner* and affirming trial court’s exclusion of expert who failed to support theory with scientific data); *S.E.C. v. Cuban*, No. 3:08-CV-2050-D, 2013 WL 3809654, at *7 (N.D. Tex. July 23, 2013) (excluding proposed expert’s *ipse dixit* assertion regarding the significance of a lack of increase in short sales because proposed expert failed to establish reliability of his opinion).

3. Allen’s Opinions Are Based On The Wrong Legal Standard.

The reliability of Allen’s opinions is further undermined by her failure to apply the appropriate legal standard. Allen conceded in her deposition that it is *not* necessary that the market realize it has been defrauded for there to be a corrective disclosure:

Q. Does the market have to recognize at the time of a corrective disclosure that it had previously been misled by the company’s misrepresentation for the corrective disclosure to be a corrective disclosure?

A. I don’t think it would necessarily have to, no.

Q. Do analysts have to recognize that the corrective disclosure – do analysts have to recognize that the misrepresentation was wrong?

A. I don’t think they have to, no.

App. 315, Allen Dep.102:18-103:4 (objections omitted).

However, in practice, Allen not only ignores the substance of the alleged corrective disclosure, she adopts an improper litmus test, effectively requiring a recognition by analysts that the market had been misled by Halliburton’s prior misrepresentation in order to find a disclosure is corrective. *See id.* 200, Allen Report at ¶ 122 (market analysts did not understand the revenue

recognition disclosures as “revelation of alleged fraud”); *id.* 242 at ¶ 233 (“The analyst made no mention of being misled by the Company”); *id.* 243 at ¶ 236 (“[T]he market was [not] reacting to [...] the realization that the Company ‘had been affirmatively misleading them’ in prior disclosures[.]”). Similarly, in summarizing her conclusion that the disclosure of the Maryland verdict was not a corrective disclosure, Allen emphasizes that “analyst commentary following the December 7, 2001 announcement shows that the market did not view it as indicating that Halliburton had misled the market about its asbestos liability.” *Id.* 240, Allen Report at ¶ 228. Allen repeatedly relies on analysts’ failure to realize the market had been defrauded in reaching her conclusion that a disclosure is not corrective, including in the following instances:

- “Nor did analysts indicate that they believed Halliburton was engaging in ‘pervasive accounting manipulations’ that the Fund alleges.” *Id.* 199, Allen Report at ¶ 118.
- “[N]one of the analysts covering Halliburton indicated after the Company’s announcement on December 7, 2001 that they had been misled.” *Id.* 218-19, Allen Report at ¶ 167.
- “Market commentary concerning these judgments indicates the market did not find them corrective of any prior misrepresentations.” *Id.* 236, Allen Report at ¶ 219.
- “Analysts did not believe that the verdicts revealed any flaw in or misrepresentation of Halliburton’s asbestos strategy or reserves for pending claims.” *Id.* 239-40, Allen Report at ¶ 227.
- “[A]nalyst commentary following the December 7 announcement shows that the market did not view it as indicating that Halliburton had misled the market about its asbestos liability.” *Id.* 240, Allen Report at ¶ 228.

Requiring that the market recognize it has been defrauded, which is not a necessary condition for finding something is a corrective disclosure, creates artificially “steep [and] difficult standards” in derogation of *Lormand*, 565 F.3d at 256 n. 10 for finding a corrective disclosure; *see also Spitzberg*, 758 F.3d at 688, 689 n.20 (a corrective disclosure does not have to “squarely and directly contradict the earlier misrepresentations” nor does it have to “mirror and earlier misrepresentation”).

By imposing this improper criterion, and giving it dispositive weight, Allen applies an improper methodology, and renders her conclusions unreliable. *See* Fed. R. Evid. 702(c) (expert

testimony must be “the product of reliable principles and methods”); *Amorgianos v. Nat’l R.R. Passenger Corp.*, 303 F.3d 256, 268-69 (2d Cir. 2002) (affirming trial court’s exclusion of expert who, despite describing appropriate variables to be considered at deposition, failed to consider proper variables in application of his methodology). An expert report based on the wrong legal standard must be excluded because it is not relevant, or helpful to the jury; it is a flaw that goes beyond the remedy of cross-examination. *See, e.g., Crown Cork & Seal Co., Inc. Master Retirement Trust v. Credit Suisse First Boston*, No. 12-cv-05803-JLG, 2013 WL 978980, *12-13 (S.D.N.Y. Mar. 12, 2013) (excluding expert’s opinion in part on finding that expert’s approach would essentially change the methodology for measuring out-of-pocket damages); *Noskowiak v. Bobst SA*, No. 04-C-0642, 2005 WL 2146073, *5 (E.D. Wis. Jan. 2, 2005) (striking expert report and declaration, and excluding expert testimony, in part because expert applied “the wrong legal standard when conducting his analysis”).

4. Allen Fails To Test For The Possibility Of Partial Corrective Disclosures.

A corrective disclosure does not have to be a single disclosure; “rather, the truth can be gradually perceived in the marketplace through a series of partial disclosures.” *Amedisys, Inc.*, 2014 WL 4931411, at *6; *Lormand*, 565 F.3d at 261 n.31 (citing cases). Partial disclosures are considered “collectively” in order to determine “whether a corrective disclosure has occurred.” *Amedisys*, 2014 WL4931411, at *6. *See also id.* (partial corrective disclosure “must be considered within the totality of all such partial disclosures”).

Allen’s analysis ignores the potential for partial corrective disclosures. The cumulative effect of Halliburton’s asbestos verdicts in late 2001 constitutes the type of corrective disclosure that “can be gradually perceived in the marketplace through a series of partial disclosures.” *Id.*, at *6. Allen recognizes as a theoretical matter that the market might interpret a verdict differently if it follows close on the heels of other adverse verdicts, App. 330, Allen Dep.

164:15–165:8, yet Allen makes no provision in her analysis to consider the cumulative effect of partial disclosures, *id.* 331, Allen Dep. 167:13–168:14. In fact, to the extent Allen considers the four substantial verdicts and judgments in Maryland, Texas, and Mississippi in the September through December time frame, Allen concludes that the earlier verdicts support the conclusion that the market reaction (a one-day 42% drop in Halliburton’s stock price) is not a corrective disclosure. *Id.* 237, Allen Report at ¶ 224 (the theory that the December 7 disclosure is corrective is “contradicted by the market’s reaction to the disclosure of the previous, larger verdicts and judgments”). Allen’s deposition testimony confirms she did not consider the cumulative effect of the partial corrective disclosures:

Q. * * * Do you think the \$30 million verdict disclosed on September 7th would have had the same impact on Halliburton’s stock price if there had not been the three prior adverse verdicts and judgments?

A. I don’t know how to answer that. My report points out that there is a change in the asbestos environment or sentiment about asbestos that happened right at the end of the class period and there are – I don’t know what – I don’t think the change was foreseeable because, for example, had I foreseen that change, this a lot of money on the table, I would have been shorting some of these stocks in those few days, so I don’t know how to answer that question. I can’t predict what would have happened.

App. 332, Allen Dep. 171:13–172:7 (objection omitted).

Analysts, however, clearly recognized the cumulative impact on the market of several adverse asbestos verdicts and judgment disclosed in a matter of just a few weeks. *See* App. 429, (UBS Warburg report calling the jury verdict disclosed on December 10, 2001 “the proverbial straw that broke the camel’s back” and noting “the size of the future liability is more uncertain than we thought as recently as last week”); *id.* at 415 (Salomon Smith Barney report discussing “the specter of lawsuits spiraling out of control[.]”); *id.* at 418 (UBS Warburg report discussing “adverse court verdicts” and stating, “we did not think that the company would be hit with so many, so quickly, which changed our view on the stock”). Ms. Allen’s failure to consider the

possibility that the asbestos verdicts acted cumulatively as partial corrective disclosures is a fundamental oversight, and renders her opinion excludable because there is not a fit between her opinions and the allegations in the case. Because she failed to consider the cumulative effect of these corrective disclosures, Allen should be precluded from offering any opinion on that topic.

5. Allen Places Undue Weight On Her Biased Selection Of Analyst Reports.

Allen's pattern of elevating market recognition that it had been misled into a make-or-break test of whether a disclosure is corrective is just part of her larger practice of placing undue reliance on analyst reports. This fault is compounded by the fact that she also selectively relied on parts of analysts' reports that support her thesis and ignored without explanation parts of their reports that cut against her thesis. For example, she cites a Jefferies report dated December 10, 2001 no fewer than three times in her report for the proposition that "Halliburton employs an effective and aggressive legal strategy to defend its asbestos liabilities." App. 218, 228, 239, Allen Report at ¶¶ 167, 191, 227. But she ignores language in the same report that cuts against her thesis. *See* Defendants' Appendix (D.E. 571) at APP 1412-14, Jeffries, December 10, 2001. The report goes on to state, for instance, that "share prices could suffer if the company's legal woes continue to mount" and that future costs "could be materially higher" than what the company had paid in the past. *Id.*

Allen also entirely ignores without explanation numerous analyst reports that contradict her theory. *See, e.g.* App. 410, Merrill Lynch, December 4, 2001 ("These three cases [Texas, Mississippi, and the unrelated Dresser case] highlight the risk of relying on historical settlement rates for projecting HAL's potential future liability."); *id.* at 414, PNC Advisors, December 7, 2001 ("with the recent high levels of the judgments against the company (approximately \$3 million per claim before insurance recoveries), we are concerned that this number [asbestos reserves] may prove to be low"); *id.* at 420-421, ABN-AMRO, December 10, 2001

(“Halliburton’s shares plunged 42.4% on Friday and 44% for the week ended December 7, 2001 as negative news regarding the company’s asbestos problems poured into the market.”). Allen’s self-serving selection of what analyst reports to quote further renders her opinions unreliable.

C. Allen’s Opinion As To What Caused Halliburton’s Stock To Drop on December 7, 2001 Is Based On Speculation.

Allen claims that the precipitous drop in Halliburton’s stock price on December 7, 2001 resulted from “an increase in uncertainty and the change in the economic and asbestos environment at the end of the class period.” App. 240, Allen Report at ¶ 229. According to Allen, “other companies with asbestos exposure were *similarly affected* [which] demonstrates that Halliburton’s price decline . . . was not due to the revelation of alleged fraud but to the change in the economic and asbestos environment.” *Id.* (emphasis added). This proffered opinion is not based on a reliable methodology and should be excluded. Allen’s analysis depends on her contention that she is making an appropriate comparison between Halliburton and other companies that were “similarly affected.” In one such comparison, she chooses three companies—Georgia-Pacific, CBS/Viacom, and Pfizer—and compares the decline in their market capitalization following Halliburton’s December 7, 2001 announcement to the change in Halliburton’s market capitalization. *Id.* 246-247 at ¶¶ 240-43. She asserts, for instance that, in the two trading days following December 7, 2001, CBS/Viacom lost \$11.8 Billion in market cap, compared to Halliburton’s market capitalization of only \$2.9 Billion. *Id.* She fails to mention that CBS was over nine times larger than Halliburton with a market capitalization of \$85 Billion, compared to Halliburton’s \$9 Billion. *Id.* 42-43, Coffman Report at ¶ 68. Accordingly, Halliburton dropped 33% in market cap, while CBS only declined 14% in market cap. Even if Halliburton had lost everything and the stock had gone to zero (a loss of \$9 Billion), it still would not have approached CBS’s \$11.8 Billion loss. *Id.* at 41-43, Coffman Report at ¶ 65-70. Georgia-Pacific’s \$1.5 Billion drop in market cap was only 18% of its market cap, and Pfizer’s

\$12.5 Billion drop in market cap was, given its enormous size, really just a modest decline of 5%. *Id.* Because neither CBS/Viacom nor Pfizer nor Georgia-Pacific experienced a percentage drop in their stock price either on December 7 (or, for that matter, on December 7 and December 10 combined), which approached the magnitude of Halliburton's stock price drop, the comparison cannot explain the reasons that Halliburton's stock price plummeted—even if Allen could justify her decision to compare Halliburton to only these three companies, which she cannot.

Equally telling, even though Allen put together an asbestos index of 31 companies with asbestos liabilities and even though she claims Halliburton's stock price movement was significantly correlated with the companies in that index starting on December 7, 2001, *Id.* at 259-261, Allen report at ¶¶ 265-271, Allen failed to determine the average percentage by which those companies' stock price dropped on December 7 (3.5%) or on December 7 and December 10 (5.1%). *Id.* at 44-45, Coffman Report ¶¶ 72-73. That, of course, is a small portion of the 42% drop in Halliburton's stock price on December 7 and the 33% drop over December 7 (a Friday) and December 10 (the following Monday, when the stock rebounded somewhat). Most revealing, Ms. Allen could have added her asbestos index to her regression analysis to determine how much of Halliburton's stock price drop on December 7 or on December 7 and 10 could be explained by her asbestos index. Had she tested her theory, she would have found that her asbestos index could explain less than 4% of Halliburton's one-day stock drop and just 10.2% of Halliburton's two-day stock drop. *Id.* 45-47, 108, Coffman Report at ¶¶ 75-78, Exh. 11. Those results refute her thesis. Because Allen could have easily tested her opinion and failed to do so, her opinion is unreliable and excludable. *See, e.g., In re Executive Telecard Ltd., Sec. Litig.*, 979 F. Supp. 1021, 1026 (S.D.N.Y. 1997) (excluding expert's opinion as unreliable where expert failed to conduct event study or equivalent analysis to test conclusion); *In re TMI Litig. Cases*

Consol. II, 911 F. Supp. 775, 806 (M.D. Pa. 1996) (failure to falsify and then modify one's hypothesis based on that testing weighs against the admission of such theories); *Frosty v. Textron, Inc.*, 891 F. Supp. 551, 554 (D. Or. 1995) (excluding experts who failed to test theory or identify methodology for reaching conclusions and noting: "[T]he subjective opinion of a qualified engineer should be rejected if the opinion is wholly untested.").

Allen also invokes a change in Halliburton's implied volatility (a rough metric of uncertainty about the stock's future price) to argue that the stock drop on December 7, 2001 was caused by something other than a corrective disclosure. Her analysis suffers from multiple, fundamental flaws that render her conclusions unreliable. First, Allen assumes Halliburton's implied volatility is an independent variable, but provides no support for that erroneous assertion. In fact, Halliburton's increased volatility was not the cause of its sharp market drop, but rather a result of the precipitous decline in its stock price, which reflected the market's realization that it could not rely on Halliburton's assertions regarding its asbestos liability. App. 15, 48, Coffman Report at ¶¶ 11, 80.

Second, Allen's selection of the three comparison companies with which she compares Halliburton's implied volatility is not based on any appropriate, objective criteria, and further undermines her conclusions.

Q. If we can look at your – starting on page 104 [of Allen Report] at the bottom, you have a section on increase on [implied] volatility and you provide charts on a couple of companies, Pfizer, Sealed Air Corp. and Viacom. Did you calculate the increase over the same period and the implied volatility of all the companies in your asbestos index?

A. No, I did *the ones that there were stories about their increased implied volatility*.

Id. 345-346, Allen Dep. 225:16–226:3 (emphasis added).

Third, even more problematic is Allen's failure to examine the implied volatility across the range of companies in her asbestos index. Had she done so, she would have found that the

implied volatility of these companies after December 7 was much smaller than what was experienced by Halliburton. *Id.* 50-51, Coffman Report at ¶¶ 85-86. Again, she cherry-picks three companies from the 31 companies in her asbestos index. *Id.* 248, Allen Report at ¶ 245. This time she chooses Sealed Air Corporation as one of the three companies instead of Georgia-Pacific. Yet even accepting Allen's hand-picked peers as the proper comparison, the data still support the conclusion that Halliburton did not move in step with the three companies Allen chose to highlight. None of the three companies in Allen's handpicked sample came close to the high rate of implied volatility Halliburton experienced. For example, after December 7, 2001 Halliburton's implied volatility appears to exceed 150 and not return to below 60 until about May 1, 2002, approximately 5 months later. *See id.* 243-44, Allen Report at ¶ 236 and accompanying chart. By contrast, Pfizer's implied volatility barely exceeds 35 and returns to the 30 range before the end of the month approximately 20 days later. *Id.* 248, Allen Report at ¶ 245 and accompanying chart. Had Allen chosen to compare Halliburton's implied volatility to that of all the other companies in her asbestos index, the results of that comparison, *see* App. 110, Coffman Report at Ex. 13, would refute her theory. Once again, Allen's failure to rigorously test her hypothesis renders her opinion unreliable. Accordingly it should be excluded. *See, e.g., In re Executive Telecard Ltd., Sec. Litig.*, 979 F. Supp. 1021, 1026 (S.D.N.Y. 1997) (excluding expert's opinion as unreliable where expert failed to conduct event study or equivalent analysis to test conclusion).

Daubert sets forth five factors the court may consider to determine reliability: (1) whether the expert's technique or theory can be and has been tested, (2) whether the technique or theory has been subjected to peer review and publication, (3) the known or potential rate of error of the technique when applied, (4) the existence and maintenance of standards and controls, and (5) whether the technique or theory is generally accepted in the scientific community. *Id.* at 593-

94. Allen's opinions that the drop in Halliburton's stock price was caused in large part by changes in the asbestos climate and increase in uncertainty regarding asbestos litigation do not meet any of these factors, and should be excluded.

CONCLUSION

For the foregoing reasons, Lead Plaintiff respectfully requests that the Court exclude or strike the proposed expert testimony of Allen (i) concerning the Bonferroni adjustment, (ii) which of the alleged disclosures are corrective disclosures, (iii) the cumulative effect of the alleged corrective disclosures, and (iv) what caused Halliburton's stock price to drop over 40% on December 7.

Dated: November 3, 2014

Respectfully submitted,

/s/ Carl E. Goldfarb

Kim E. Miller
(admitted pro hac vice)
KAHN SWICK & FOTI, LLC
250 Park Avenue, Suite 2040
New York, NY 10177
Tel: (212) 696-3730
Fax: (504) 455-1498

David Boies
(admitted pro hac vice)
BOIES, SCHILLER & FLEXNER LLP
333 Main Street
Armonk, NY 10504
Tel: (914) 749-8200
Fax: (914) 749-8300

Lewis S. Kahn
Michael Swick
Neil Rothstein
(admitted pro hac vice)
KAHN SWICK & FOTI, LLC
206 Covington Street
Madisonville, LA 70447
Tel: (504) 455-1400
Fax: (504) 455-1498

Carl E. Goldfarb
(admitted pro hac vice)
BOIES, SCHILLER & FLEXNER LLP
401 E. Las Olas Blvd., Suite 1200
Ft. Lauderdale, FL 33301
Tel: (954) 356-0011
Fax: (954) 356-0022

***SPECIAL COUNSEL TO LEAD
PLAINTIFF, THE ERICA P. JOHN
FUND, INC., AND THE CLASS***

***LEAD COUNSEL TO LEAD PLAINTIFF,
THE ERICA P. JOHN FUND, INC., AND
THE CLASS***

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on November 3, 2014, I served the attached document via CM/ECF System to the following counsel of record.

Jessica B. Pulliam
Tom O'Brien
John Lawrence
BAKER BOTTS, LLP
2001 Ross Avenue, Suite 600
Dallas, Texas 75201-2980
Tel.: (512) 322-2500
Fax: (512) 322-2501
Jessica.Pulliam@bakerbotts.com
tom.obrien@bakerbotts.com
john.lawrence@bakerbotts.com

David D. Sterling
BAKER BOTTS, LLP
910 Louisiana Street
Houston, Texas 77002-4995
Tel: (713) 229-1234
Fax: (713) 229-2099
David.Sterling@bakerbotts.com

/s/ Carl E. Goldfarb
Carl E. Goldfarb